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CASE REPORT

Keloid Acné of the Neck: Excellent Response to Treatment with 5% Topical Imiquimod

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Abstract

Acne keloid nuchae (AKN) or sclerosing folliculitis of the nape of the neck is a chronic inflammatory process of the nape region. Its incidence is low and its etiology is unknown. It mainly affects brown-black males in middle age. Different treatment modalities have been used with different responses. We present the case of a patient with AKN who presented an excellent response to the daily use of topical imiquimod 5% for eight weeks.

Keywords: Keloid acne of the neck - Imiquimod 5%

Introduction

Acne cheoloides nuchae is a dermatosis typical of men of African descent, which generally does not pose difficulties in clinical diagnosis. [1] However, there is no protocol regarding its therapeutic management. Different therapeutic modalities have been used over time with different responses. That is why we found it interesting to present the case of a patient with this pathology who presented an excellent response to daily use of topical 5% imiquimod for eight weeks.

Clinical Case

A 21-year-old male, administrative employee, with a family history of Diabetes Mellitus and high blood pressure and a personal history of obesity (BMI 31), dyslipidemia, insulin resistance, and fatty liver, with no known drug allergies.

He consulted for asymptomatic lesions on the neck of 8 months of evolution. During that time, he reported a worsening with the appearance of new lesions. He do not do any pretreatment.

Examination revealed multiple erythematous, hemispherical papules of different sizes, with a hard consistency, some centered on a hair and others converging with each other, in the region of the neck (Figure 1). He also had some pustular lesions. He reported occasional itching. Blood analysis reported: Total Cholesterol 3.6 gr/lt, Insulinemia 96 uIU/ml, GOT 68 IU/lt and GPT 72 IU/lt, as relevant data.

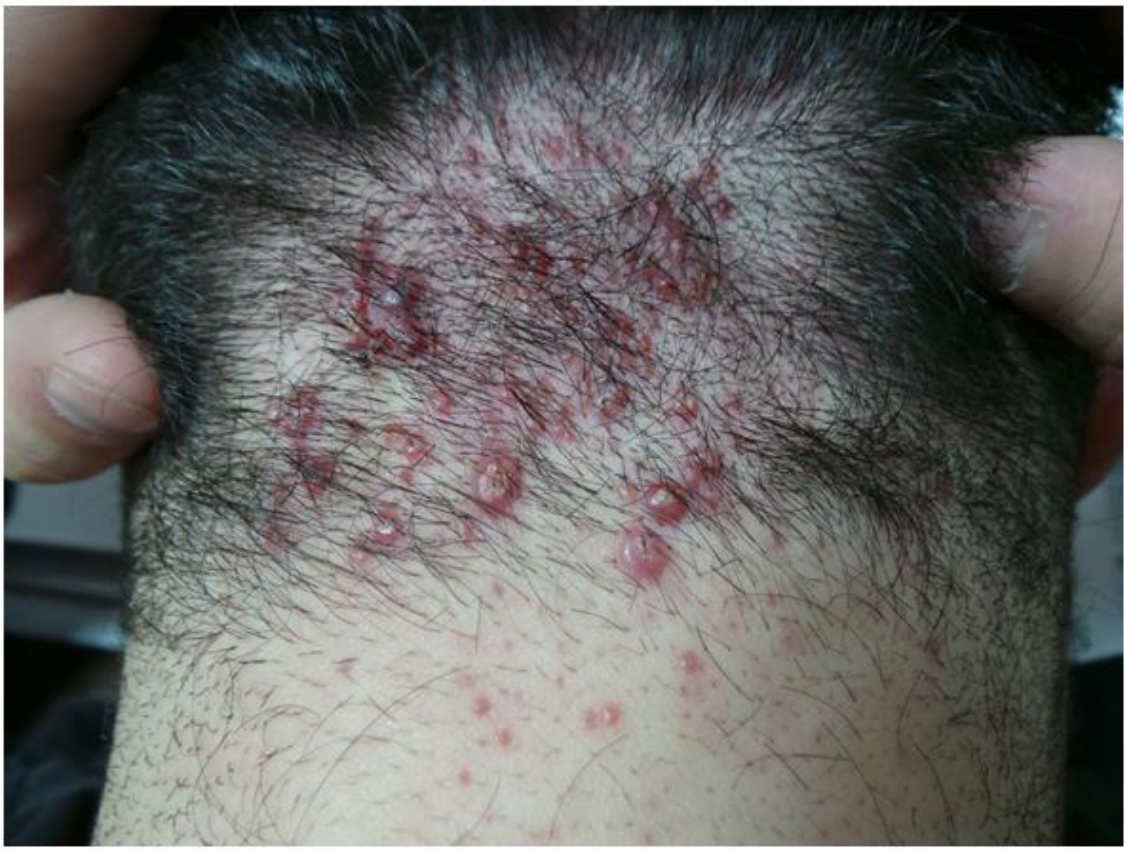

Figure 1: Some pustular lesions

A biopsy was performed of one of the lesions whose histopathological study showed: regular acanthosis of the ridges in the epidermis, an inflammatory lymphocytic infiltrate in the superficial and perifollicular dermis (Figure 2). Due to the pathological history of the patient, it was decided to start topical treatment with fusidic acid every 12 hours for 5 days to eliminate infected lesions and then with Imiquimod 5% daily at night. After eight weeks of treatment an excellent response was observed. (Figure 3)

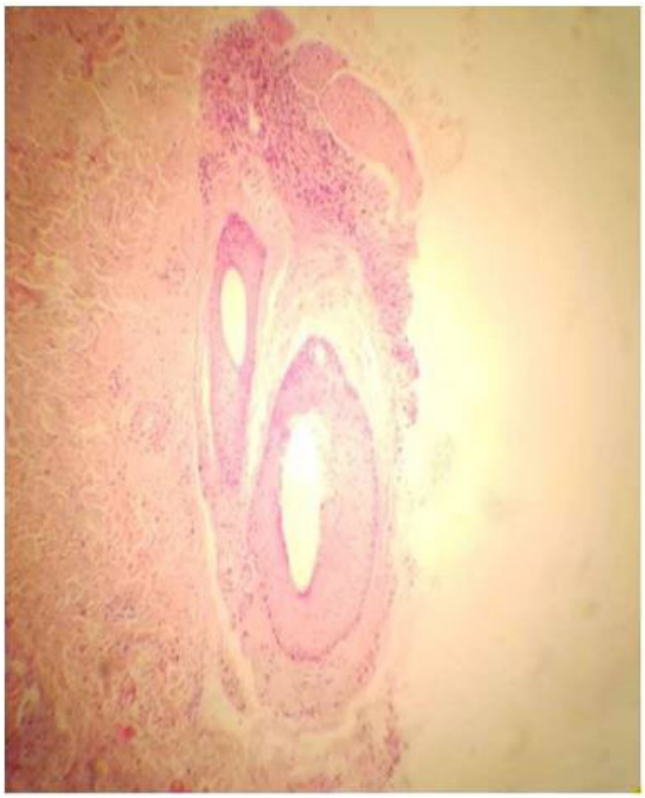

Figure 2: A biopsy was performed of one of the lesions whose histopathological study showed

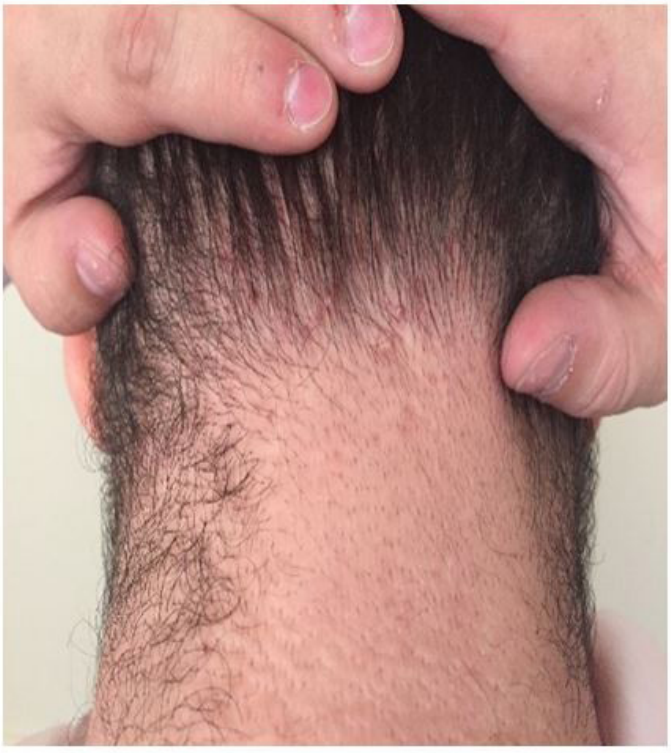

Figure 3: Treatment after 8 weeks of time

Commentary

Acne keloid nuchae (AKN) is a superficial chronic inflammatory dermatosis that compromises the hair follicles of the occipital region of the scalp. [1,2,3]

Its etiology is unknown. Several authors have proposed that it could be caused by irritation and chronic occlusion of the hair follicles, although other factors would include autoimmunity, excess androgens or increased sensitivity to them, seborrheic constitution, increased number of mast cells in the area and some medications. (diphenylhydantoin, carbamazepine or cyclosporine). [3,4] At first, it usually presents as papules and pustules, erythematous, inflamed and firm, in the form of domes, on the nape of the neck, with time fibrosis occurs, with fusion of the papules, forming scarring plaques reminiscent of keloids. [3] Patients usually report itching, burning sensation or pain. [5] Initial histopathological studies show follicular and perifollicular inflammation and then altered hair follicles, a foreign body reaction with acute and granulomatous inflammation and subsequent dermal fibrosis. [6] Treatments described to date include the topical use of antibiotics (fusidic acid, erythromycin, or clindamycin), retinoids, high-potency corticosteroids, and urea. [8] Also the intralesional use of triamcinolone acetonide.[7] Oral antibiotics such as tetracycline, minocycline or doxycycline can improve the acute flare.8 Oral retinoids, mainly isotretinoin, have been shown to be useful in some patients.[2] The surgical approach is usually reserved for larger lesions that do not respond to medical treatments and include: electrosurgery, cryotherapy, excision and grafting, excision with primary closure, excision and closure by secondary intention, and excision by staged primary closure. [7] In recent years, the use of laser therapy (CO2, 1064 nm Nd-YAG, 59 nm pulse dye laser, 810 nm Diode laser and Alexandrite laser) has been reported. [9] In the management of AKN, the use of imiquimod (IMQ) has been little reported in the world medical literature. One article reported that the use of IMQ for five consecutive days for eight weeks has been successful in some patients [4] and another study, small and open, showed success with the use of IMQ and topical pimecrolimus for eight weeks, being effective, well tolerated and with good cosmetic benefit.[10] The mechanism of action of this drug is related to the innate and adaptive immune pathways: it stimulates numerous cytokines (INF Alpha, IL1, IL6, IL8, IL10, TNF Alpha), inhibits angiogenesis, activates caspases 8 and 3 and its ligands, increasing the rate of apoptosis in keloid fibroblasts and activating perforins, in addition to stimulating and activating four antigen-presenting cells: langherans cells, dendritic cells, macrophages and B lymphocytes.[11,12]from these actions Imiquimod would improve AKN lesions.

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